

VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Claims

The claims have been amended as follows:

1. (Amended) A device ~~allowing to separate~~ for separating at least one compound from a mixture or a body by adsorption with a simulated moving bed, comprising at least:
 - [•] an enclosure or column comprising one or more adsorbent beds (A_i), two adsorbent beds being separated by at least one fluid distribution and extraction plate (P_i), the plate comprising one or more panels allowing distribution, mixing and/or extraction of the fluids, at least one panel comprising a single distribution, mixing and/or extraction chamber (C_i),
 - [•] ~~several~~ a plurality of lines (10, 11, 12, 13, T_i) allowing for extraction or injection of secondary fluids.
 - [•] a bypass circuit communicating a distribution plate with at least one bypass line ($L_{i,j}$), wherein
 - ~~the panel comprises a single distribution, mixing and/or extraction chamber (c_i), characterized in that:~~
 - [•] the device comprises means (14, $V_{oi,j}$, 20) for communicating said at least one single distribution, mixing and/or extraction chamber (C_i) with at least one bypass line ($L_{i,j}$),
 - [•] at least one end of a bypass line communicates with a zone (R_i , R'_i) of an adsorbent bed, said zone being distinct from a said distribution chamber (C_i), and another end is connected to said chamber (C_i).
4. (Amended) A device as claimed in claim 3, characterized in that said rotary valve (20) ~~allows to communicate several~~ is in communication with a plurality of groups of lines, group G_1 , group G_2 and group G_3 , said valve comprising:
 - a stator (110) provided with several means (E, F, R, S) intended for circulation of the fluid(s) of group G_1 , means (115, 116) allowing passage of at least two fluids F_1 , F_2 belonging to group G_3 ,

a rotor (117) equipped with means (119) allowing passage of the fluids of group G_3 and means (120) allowing for communication of either the fluids of group G_1 with group G_3 , or of group G_3 with Group G_3 ,

- ~~the number of means (115) intended for passage of fluid F_1 is and (116) comprising~~ a substantially equal number of passages, to the number of means (116) intended for passage of fluid F_2 , said valve comprises means (122) for communicating at least two fluids of group G_3 and flow section S_1 of the ports intended for fluid F_1 is different from flow section S_2 of the ports intended for fluid F_2 .

5. (Amended) A device as claimed in claim 4, characterized in that the means provided on the valve for passage of fluid F_1 and of fluid F_2 have flow surface areas S_1 and S_2 respectively and in that the S_1/S_2 ratio ~~is about 4 and preferably~~ ranges between 2 and 10.

6. (Twice Amended) A device as claimed in claim 1 4, characterized in that said means allowing communication of the fluids of group G_3 consists of slots (122) provided in a layer of material or liner deposited on the lower face of the rotor.

8. (Twice Amended) A device as claimed in claim 1 4, ~~characterized in that~~ wherein said circulation means (E, R, S, F) ~~consist of several~~ comprises a plurality of grooves arranged on the resting face or upper face of the stator and in that slots (122) are provided in the liner.

9. (Twice Amended) A device as claimed in claim 1 4, characterized in that circulation means (E, R, S, F) are 4 in number.

10. (Amended) A device as claimed in claim 1, characterized in that said enclosure comprises a ~~non-perforated~~ central tube over at least part of the length thereof, and in that the panels forming a plate ~~exhibit~~ consist a tangential ~~type~~ cutout, zone (Ri, R'i) comprises at least one diverted fluid distribution means (53, 54), and the end of bypass line (Li,j) opens into said

distribution means (53, 54).

11. (Amended) A device as claimed in claim 10, characterized in that the fluid distribution circuit is arranged around said enclosure and in that it comprises a main line (61) divided into ~~several~~ a plurality of secondary lines (62, 63, 62a, 62b, ...) so that the fluid(s) reach the panels forming a plate substantially at the same time.

12. (Amended) A device as claimed in claim 1, characterized in that the plates ~~exhibit forma parallel type~~ cutout and in that the fluid distribution device comprises a main line, ~~and~~ the bypass line is connected to an adsorbent bed by means of a device comprising transfer ports, said device being mounted on the fluid distribution spider.

14. (Amended) A device as claimed in claim 1, characterized in that a plate ~~consists of several~~ comprises a plurality of panels ~~exhibiting forming~~ a radial type cutout, the enclosure comprises a central tube and a secondary fluid distribution ring ~~asseeiated~~ in communication with a distribution plate, diverted fluid distribution means, said means being arranged below the distribution ring and said means being connected to the end of the bypass line, ~~itself~~ said bypass line being connected to a zone of an adsorbent bed.

18. (Amended) ~~A~~ In a process intended for comprising injection of a diverted fluid in a simulated moving bed separation process, comprising at least the following stages:

- [•] circulating a main fluid through ~~several~~ a plurality of adsorbent beds,
- [•] injecting and extracting secondary fluids (~~feed, desorbent, ...~~) comprising feed, desorbent, extract and/or raffinate according to a ~~suitable sequence~~ sequentially in order to achieve separation of the constituents of the feed,

- [•] injecting a diverted fluid,

~~characterized in that the improvement wherein~~ at least part of the main fluid is circulated outside the enclosure allowing separation by means of a bypass line comprising at least two ends, one

end being connected to a zone of an adsorbent bed distinct from a chamber (Ci) so as to inject and/or to extract part of the main fluid in the zone.

21. (Twice Amended) ~~Application of the device~~ A process as claimed in claim 1 ~~18, and of the process as claimed in any one of claims 18 to 20~~ for separation of paraxylene from aromatic hydrocarbon-containing feeds with eight carbon atoms.

Claims 22 and 23 are newly added.